

INITIAL SCOPING LETTER

PEDESTRIAN SCHOOL SAFETY ZONE
TRANSPORTATION ENHANCEMENT PROJECT

PHASE I: PEDESTRIAN COUNT DOWN SIGNAL HEADS

SUBMITTED: JUNE 2004
CITY OF PHOENIX CIP NO: ST89320051
FEDERAL AID PROJECT NUMBER:
TRACS NUMBER:

Initial Scoping Letter
City of Phoenix Pedestrian School Safety Project
Phase I: Pedestrian Countdown Signal Heads

I. INTRODUCTION

The purpose of this project is to improve pedestrian and pedacyclist safety in and around school zones in the City of Phoenix. The total project costs are estimated at \$665,000 with \$500,000 in ADOT and approximately \$165,000 in City of Phoenix funds. The project was designed to apply a mix of treatments including pedestrian refuge islands, pedestrian countdown signal heads and other pedestrian traffic enhancing treatments to Phoenix school routes. Do to the differences in the environmental, cultural and budgetary aspects of all three treatments; the project has been separated into two phases. Phase I addresses the addition of pedestrian countdown signal heads and phase II will address all other treatments.

This scoping letter covers Phase I, the purchase and installation of 52 sets of pedestrian countdown signal heads (figure 1) at different arterial/collector intersections at or near school zones within the City. The estimated cost of this phase of the project will be \$104,000 which is based on the purchase and installation cost estimate of \$2000 per set of signal heads.

Once purchased, City of Phoenix Traffic Signal Shop work crews will install the signal heads to existing traffic signal poles and electrical wiring. This arrangement should eliminate any cultural and environmental impact of this Phase of the program. Because of the minimal cultural and environmental impact of this Phase, it is anticipated that construction will commence as soon as funds become available.

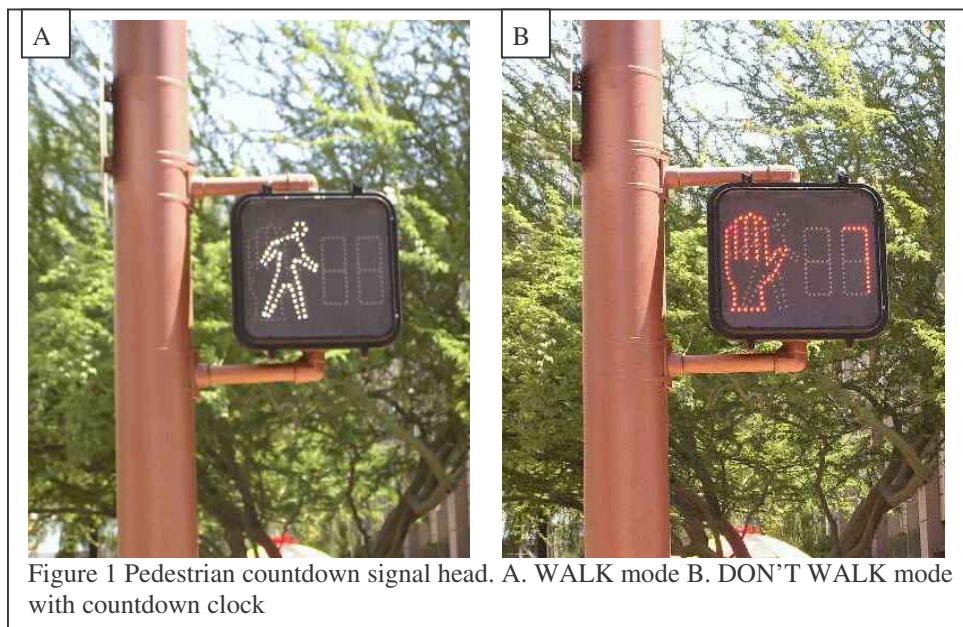


Figure 1 Pedestrian countdown signal head. A. WALK mode B. DON'T WALK mode with countdown clock

II. BACKGROUND DATA

A. Project Area

The City of Phoenix is a leader in pedestrian school safety. As part of our continuing effort to upgrade school pedestrian facilities, we applied for and were awarded a grant for a program known as the Pedestrian School Safety Zone Project which is being developed to improve the safety of pedestrian routes to school. This project was developed in conjunction with our School Safety Taskforce and represents a continuation of our efforts at improving safety and access to learning for City school children. This specific portion of the project dealing with pedestrian countdown signal heads was developed to provide additional visual information to assist students crossing within marked crosswalks on arterial streets near or at school zones. The additional information will be delivered in the form of a visual countdown of the time remaining in the green cycle on the standard WALK/DON'T WALK signal face. It is intended that this will assist school children in decision making on when to enter the crosswalk and how quickly to exit the crosswalk.

III. PROJECT SCOPE

The countdown signal heads called for in this project are intended for use at traffic signal controlled crosswalks at 28 elementary, middle and high school locations Citywide (see table 1 and vicinity map). It is anticipated that as funds become available, all 52 sets of signal heads will be purchased and once received, work crews will begin immediate installation. There will be no specific plans for each location however the position and installation of individual signal heads on existing traffic signal poles will be similar to the figure in the typical section sketch and will be carried out in accordance with current ADOT and Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

Due to the nature of this phase of the project, ADOT will not be asked for any assistance other than initial funding assistance.

IV. PROJECT DEVELOPMENT CONSIDERATIONS

All of the pedestrian countdown signal heads purchased under this grant will be installed on existing traffic signal poles and wired into the existing traffic signal power grid. There will be no requirements for any ground disturbance (e.g. digging or trenching) or disruption of the natural environment at the installation site. As a result, there should be no adverse environmental aspects of the installation.

V. ESTIMATED COST

The signal heads and installation will be paid for through a combination of Arizona Department of Transportation (ADOT) Transportation Enhancement Program (Round 11) Grant (\$98,000) and approximately 5.8% matching City of Phoenix construction funds (\$6,000).

VI. ITEMIZED COST ESTIMATE

The current cost estimate based on unit and installation pricing and current known conditions is as follows:

| <u>Item</u> | <u>Quantity</u> | <u>Unit Price</u> | <u>Total Amount</u> |
|-----------------------------|-----------------|-------------------|---------------------|
| Design Costs | None | NA | NA |
| Right of Way Acquisition | None | NA | NA |
| Utility Relocation | None | NA | NA |
| Unit Price | 52/pair | \$800/pair | \$41,600 |
| Installation (electrical) | 52/pair | \$1200/pair | \$62,400 |
| Construction Administration | None | NA | NA |
| Contingencies | None | NA | <u>NA</u> |
| Total | | | \$104,000 |

VII. VICINITY MAP

See attached figure

VIII. TYPICAL SECTION SKETCH

See attached figure

IX. SCHEDULE

The exact schedule is to be determined based on availability of funds however, it is anticipated that once funding becomes available, the project should proceed rapidly and should take no more than eight months to complete.

X. 15% PLANS

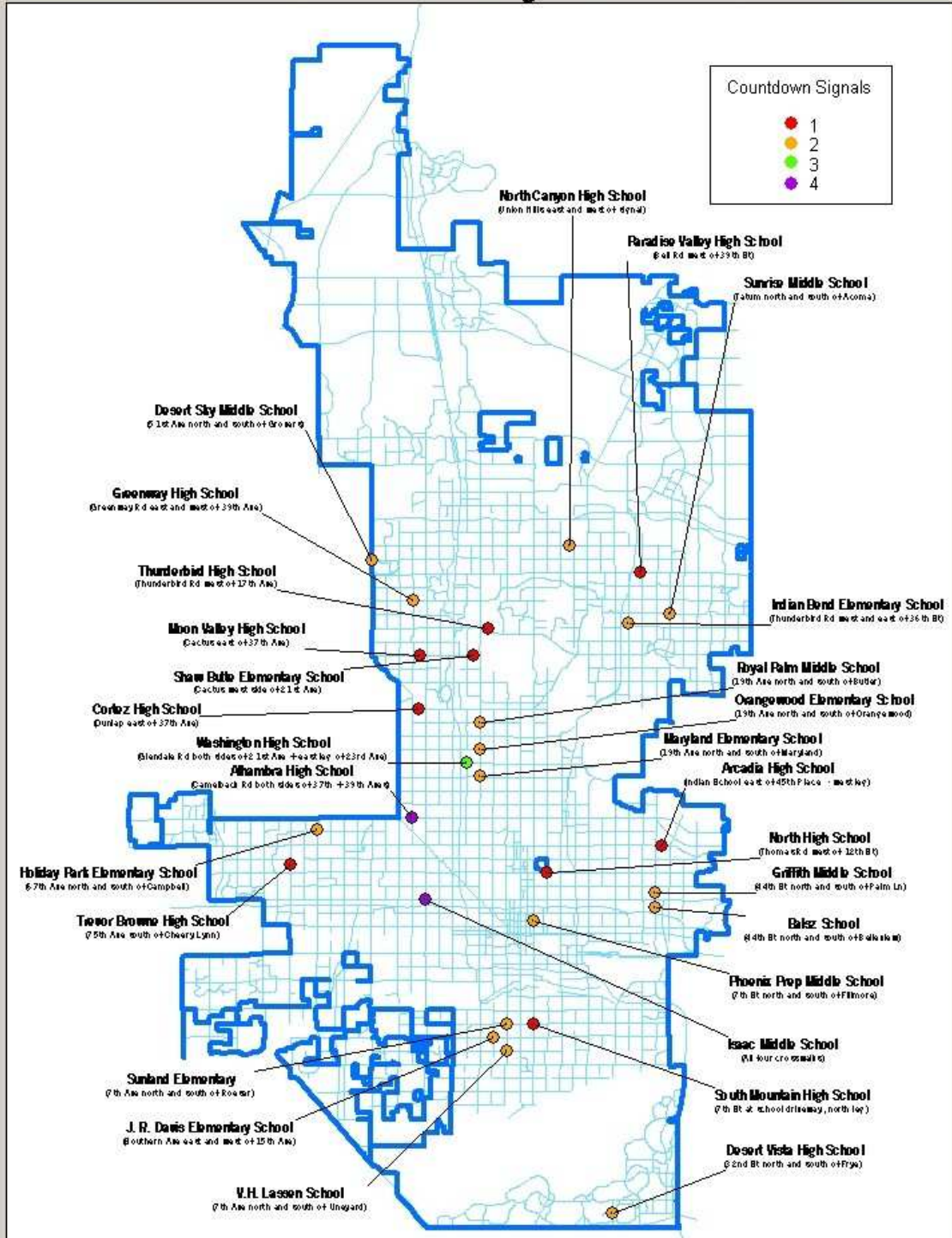
Due to the nature of this phase of the project, no individual sight plans will be prepared for this project.

Table 1 Pedestrian Countdown Signal Head Locations

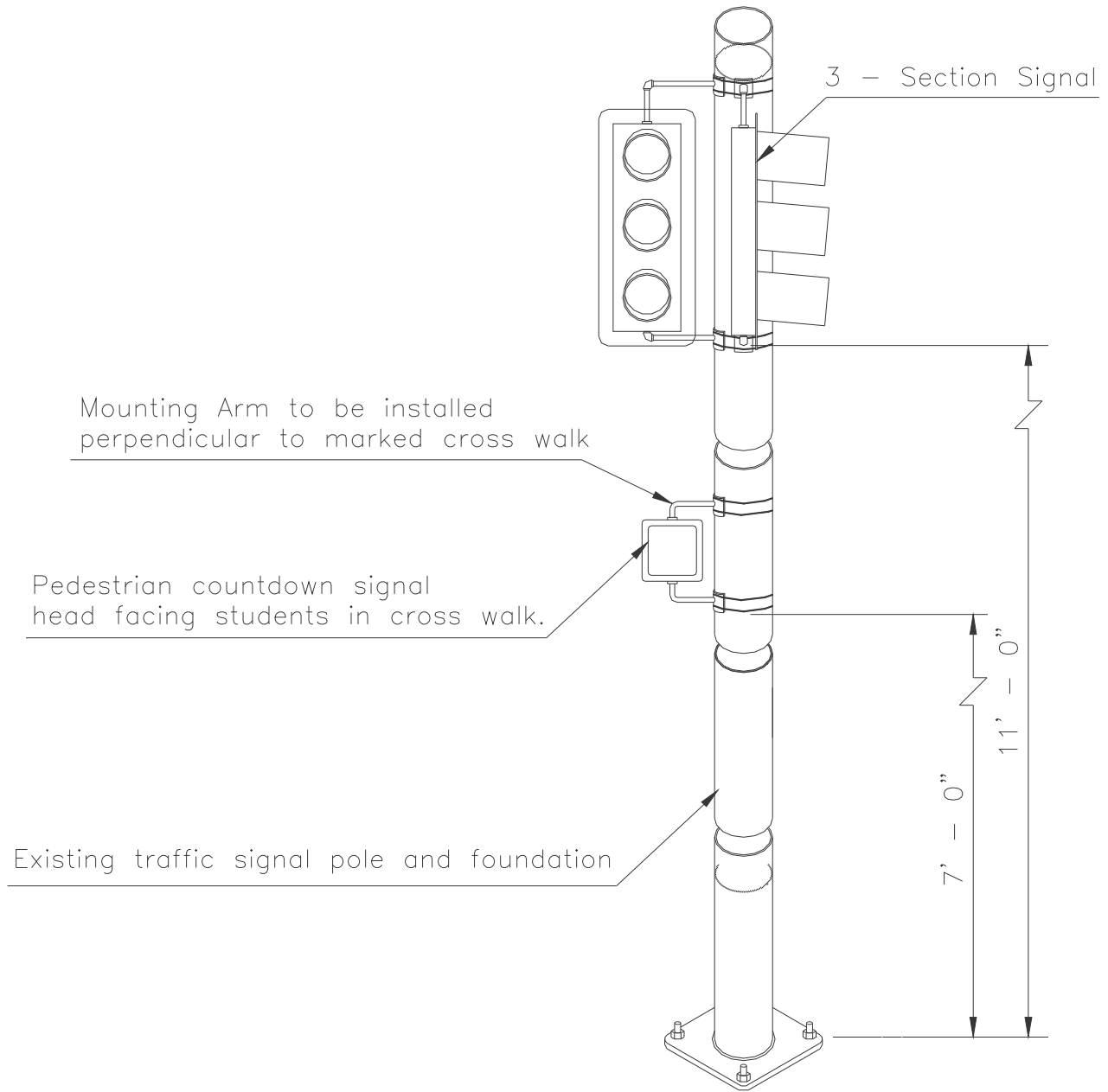
| School Name | Intersection Location | Number (sets) | New Signal Head Location |
|-----------------------------|---|---------------|---|
| Trevor Browne | Cheery Lynn & 75th Ave | 1 | 75th Ave south of Cheery Lynn |
| Cortez High School | Dunlap & 37th Ave | 1 | Dunlap east of 37th Ave |
| Isaac Middle School | McDowell & 35th Ave | 4 | All four crosswalks |
| Holiday Park Elem. School | Campbell & 67th Ave | 2 | 67th Ave north and south of Campbell |
| Sunland Elementary School | 7th Ave & Roeser | 2 | 7th Ave north and south of Roeser |
| Balsz School | Bellevue & 44th St | 2 | 44th St north and south of Bellevue |
| Griffith Middle School | Palm Ln & 44th St | 2 | 44th St north and south of Palm Ln |
| Moon Valley High School | Cactus & 37th Ave | 1 | Cactus east of 37th Ave |
| Washington High School | Glendale at 21st & 23rd (east leg) Aves | 3 | Glendale Rd both sides of 21st Ave & east leg of 23rd Ave |
| Alhambra High School | Camelback at 37th & 39th Aves | 4 | Camelback Rd both sides of 37th & 39th Aves |
| Shaw Butte Elem. School | Cactus & 21st Ave | 1 | Cactus west side of 21st Ave |
| Phoenix Prep Middle School | Fillmore & 7th St. | 2 | 7th St north and south of Fillmore |
| Sunrise Middle School | Tatum & Acoma | 2 | Tatum north and south of Acoma |
| North High School | Thomas Rd & 12th St | 1 | Thomas Rd west of 12th St |
| South Mountain High School | 7th St 350' north of Sunland | 1 | 7th St at school driveway, north leg |
| Desert Vista High School | Fry & 32nd St (N/S legs) | 2 | 32nd St north and south of Frye |
| Greenway High School | Greenway & 39th Ave | 2 | Greenway Rd east and west of 39th Ave |
| V.H. Lassen School | 7th Ave & Vineyard | 2 | 7th Ave north and south of Vineyard |
| Orangewood Elem. School | 19th Ave & Orangewood | 2 | 19th Ave north and south of Orangewood |
| Maryland Elementary School | 19th Ave & Maryland | 2 | 19th Ave north and south of Maryland |
| Royal Palm Middle School | 19th Ave & Butler | 2 | 19th Ave north and south of Butler |
| Arcadia High School | Indian School east of 45th Pl | 1 | Indian School east of 45th Place - west leg (school driveway) |
| J. R. Davis Elementary | Southern & 15th Ave | 2 | Southern Ave east and west of 15th Ave |
| Thunderbird High School | Thunderbird & 17th Ave | 1 | Thunderbird Rd west of 17th Ave (school driveway) |
| Paradise Valley High School | 3950 E. Bell Rd | 1 | Bell Rd west of 39th St. (school driveway) |
| Indian Bend Elem. School | Thunderbird & 36th St | 2 | Thunderbird Rd west & east of 36th St |
| North Canyon High School | 1800 E. Union Hills | 2 | Union Hills east and west of signal (school driveway) |
| Desert Sky Middle School | Grovers & 51st Ave | 2 | 51st Ave north and south of Grovers |

52 Total Sets

Pedestrian Countdown Signal Head Locations



Typical Section Sketch



STANDARD PEDESTRIAN COUNTDOWN
SIGNAL HEAD MOUNTING DETAIL
(NO SCALE)